

Subject: FW: West Lake Landfill, Fw: Alternative Landfill Covers Work Plan

Hi Doug, on this workplan, I had asked how you would like to proceed (see email below) – I went back and couldn't find a reply, so all I can offer at this point is that the Board's draft recommendation memos, as well as the technical consultation document signed in February of this year, all indicate:

The package presented to Board described an alternative as a hybrid cap/cover design incorporating both Resource Conservation and Recovery Act (RCRA) Subtitle D and Uranium Mill Tailings Radiation Control Act (UMTRCA) cover design features applied to an existing unlined landfill. However, the package lacked sufficient information on the long-term protectiveness of this alternative. Specifically, how the cap/cover remains protective given the increasing daughter ingrowth concentrations of radium 226/228, radon 222, and the increase in toxicity over time (1,000 years).

Both of these cover designs (RCRA Subtitle D and UMTRCA) have shortcomings for RIM waste itself, especially in a humid region. A comparison of various landfill capping designs addressing both humid region conditions and long-term protection from RIM (1,000 years) would be an important concept for the preferred remedy. However, the package did not appear to include alternative cap designs, i.e., EPA landfill cap guidance design, existing cap designs for similar RIM at Weldon Springs, or evapotranspiration cover cap system designs (OSWER Fact Sheets: EPA 542-F11-001, February 2011, Fact Sheet on Evapotranspiration Cover Systems for Waste Containment). For example, a RCRA Subtitle C/UMTRCA hybrid may be suitable for both long-term infiltration management and radiation shielding protection. The Board suggests that the Region include in its remedy selection process evaluations of cap designs similar to, but not limited to, the above conditions and guidances.

The alternative cover designs workplan addresses some of this, but not all of it (for example, the Board specifically mentioned Weldon Springs, the work plan does not).